

## REMARKS

Upon entry of the present Amendment, claims 1-6, and 9-12 will be pending in the Application. Claims 7 and 8 have been canceled. Claims 13-15 and 23-28 have been withdrawn as being directed to nonelected inventions. Claims 16-22 have been canceled.

Claim 1 has been amended in an effort to better define the claimed invention. Support for the amendments to claim 1 may be found in the Specification as filed at least on the following pages/paragraphs: page 14, lines 1-9 and in the working examples 1, 2, and 3 on page 28, ll. 8-29. No new matter has been introduced by this amendment.

Amendments to, cancellation of, and additions to, the claims, as set forth above, are made in order to streamline prosecution in this case by limiting examination and argument to certain claimed embodiments that presently are considered to be of immediate commercial significance. Amendment or cancellation of the claims is not in any manner intended to, and should not be construed to, waive Applicants' right in the future to seek such unamended or cancelled subject matter, or similar matter (whether in equivalent, broader, or narrower form) in the present application, and any continuation, divisional, continuation-in-part, RCE, or any other application claiming priority to or through the present application, nor in any manner to indicate an intention, expressed or implied, to surrender any equivalent to the claims as pending after such amendments or cancellations.

Reconsideration is respectfully requested in view of the foregoing amendments and/or following remarks.

### **1. Rejection under 35 U.S.C. §112.**

In order to expedite the prosecution of the present Application, independent claim 1 has been amended to recite "50 to 85% by weight" of at least one pigment A, "based on the total weight of the solid pigment preparation".

In view of the foregoing amendment, Applicants respectfully assert that the rejection under 35 U.S.C. 112 is moot. Withdrawal of this rejection is respectfully requested.

2. **Rejection of claims 1-2, 4-7, and 12 under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 6,168,895 to Metz et al., hereafter "Metz".**

Metz teaches an azo pigment of the formula (1), which has a specific surface area of the pigment powder of more than 45 m<sup>2</sup>/g. (Metz, abstract). Typical powder coating resins employed are epoxy resins, polyester resins containing carboxyl and hydroxyl groups, polyurethane resins and acrylic resins, together with the conventional curing agents. Combinations of resins are also used. (Metz, column 5, lines 54-58). The pigment is incorporated homogeneously--for example by extrusion or kneading--at a concentration of from 0.01 to 50% by weight, preferably from 0.5 to 20% by weight and particularly preferably from 0.1 to 5.0% by weight, based on the total mixture, into the binder. (Metz, column 16, lines 26-31).

In contrast, Applicants' independent claim 1 is directed to a solid pigment preparation comprising 50 to 85% by weight of at least one pigment (A), based on the total weight of the solid pigment preparation and (B) at least one carrier material selected from the group consisting of oligomers and polymers which have a glass transition temperature > 30°C and a melting point or melting range below their decomposition temperature.

Applicants' solid pigment preparation is prepared by dispersing the pigment or pigments (A) or the pigment or pigments (A) and at least one constituent (D) in the melt of the carrier material or carrier materials (B) or in the melt of the carrier material or carrier materials (B) and at least one constituent (D) for from 0.5 to 5 hours in a discontinuously operating dispersing apparatus with a power input of from 0.1 to 1.0 kW/kg, and then discharging the mixture (A/B) or (A/B/D) from the dispersing apparatus and allowing it to cool and solidify.

To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988).

Since Metz fails to disclose solid pigment preparations having from 50 to 85% by weight of a pigment (A), based on the total weight of the solid pigment preparation, Metz necessarily cannot anticipate the invention of independent claim 1 nor any of the claims dependent thereon.

Accordingly, it is respectfully submitted that the invention of amended independent claim 1 is novel over Metz. Reconsideration and removal of the anticipation rejection based on Metz is respectfully requested.

3. **Rejection of claims 1-2, 4-7, and 12 under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 4,234,466 to Takahashi et al., hereafter "Takahashi".**

Takahashi teaches a process for preparing a solid pigment dispersed composition which comprises subjecting a liquid composition comprising at least one ethylenically unsaturated polymerizable compound, at least one resin dissolved or dispersed therein and at least one pigment dispersed therein to suspension or bulk polymerization, if necessary, with previous color matching. (Takahashi, abstract).

Applicants greatly appreciate the detailed basis of rejection but must respectfully disagree.

First, Takahashi does not disclose a solid pigment preparation having from 50 to 85% by weight of a pigment (A), based on the total weight of the solid pigment preparation, wherein the solid pigment preparation has been made by Applicants' particularly required process.

Rather, the portion of Takahashi relied upon by the PTO relates only to a mixing of the prepolymerization components before they are subjected to the polymerization step that Takahashi requires before the resultant pigment composition is cooled, washed, and dried to give a solid pigment dispersed composition. *See '466, col. 4, lines 16-60 and col. 8, lines 10-47.* Takahashi does not disclose Applicants' claimed solid pigment preparation.

In making the instant rejection, the Examiner relies on *Thorpe* as basis for disregarding Applicants' uniquely required product-by-process limitations. However, Applicants respectfully submit that the holding in *Thorpe* has been misapplied to the instant facts. Indeed, it is submitted that *Thorpe* supports the patentability of the instant claims.

For example, *Thorpe* holds that "if the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even

though the prior product was made by a different process.” *In re Thorpe*, 77F.2d 695, 698,227 USPQ 964,966 (Fed. Cir. 1985) (citations omitted, emphasis added). Therefore, in view of *Thorpe*, the patentability of a product does indeed depend on its method of production if the product in the product-by-process claim is different or unobvious from a product of the prior art.

Independent claim 1 is directed to a solid pigment preparation. A solid pigment preparation can be characterized according to several properties, including gloss. If two pigment preparations comprising the same constituents at the same weight percentage have substantially different gloss values, it can be deduced that the two pigment preparations are different.

Applicants respectfully assert that two compositions comprising a pigment and a carrier material and consisting of exactly the same components in the same weight percentage (wt%), when one is formed into a pigment preparation using a conventional technique, and the other is formed into a pigment preparation according to Applicants' independent claim 1, the two pigment preparations thus produced are substantially different. This is evidenced, for example, in Applicants' Inventive Examples 1-3 when compared to Applicants' Comparative Examples 1-3. Some of the data is tabulated below for the convenience of the Examiner.

	Pigment-titanium dioxide Rutile 2310 (wt%)	Carrier material- URALAC 3495 (wt%)	Gloss
Inventive Example 1	67.5	32.5	88
Comparative Example 1	67.5	32.5	70

	Pigment- HOSTAPERM Yellow H4G (wt%)	Carrier material- URALAC 3495 (wt%)	Gloss
Inventive Example 2	50.0	50.0	69
Comparative Example 2	50.0	50.0	33

	Pigment-	Carrier material-	Gloss
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	IRGALITH Blue PDS 6 (wt%)	URALAC 3495 (wt%)	
Inventive Example 3	50.0	50.0	68
Comparative Example 3	50.0	50.0	47

It can be seen from the above data that the properties of the pigment preparations produced according to Applicants' independent claim 1 are substantially different, as evidenced by the gloss values. Two products can not be the same when they have different properties. Therefore, Applicants have demonstrated that the product, produced according to Applicants' product-by-process claim, is **not** the same as or obvious from that of the product of the prior art, and **is** indeed **different**. According to *Thorpe*, this is at least sufficient for the product-by-process claim to be given patentable weight.

Therefore, Applicants respectfully assert that the limitation "prepared by dispersing the pigment or pigments (A) or the pigment or pigments (A) and at least one constituent (D) in the melt of the carrier material or carrier materials (B) or in the melt of the carrier material or carrier materials (B) and at least one constituent (D) for from 0.5 to 5 hours in a discontinuously operating dispersing apparatus with a power input of from 0.1 to 1.0 kW/kg, and then discharging the mixture (A/B) or (A/B/D) from the dispersing apparatus and allowing it to cool and solidify" carries considerable patentable weight.

In response, the PTO has justified ignoring Applicants' comparative data on the grounds that the data is not based on the prior art of record, i.e., Metz and/or Takahashi.

However, it is submitted that Applicants' foregoing data compares the claimed invention against prior art that is closer than that currently relied upon by the PTO. It will be appreciated that such is allowed by MPEP 716.02 (e). As stated therein, Applicants may compare the claimed invention with prior art that is more closely related to the invention than the prior art relied upon by the examiner. *In re Holladay*, 584 F.2d 384, 199 USPQ 516 (CCPA 1978); *Ex parte Humber*, 217 USPQ 265 (Bd. App. 1961)

In this case, Applicants' working examples change only the variables relating to the specific process and equipment by which the comparative pigment preparations are made. More particularly, Applicants' working examples 1, 2, and 3 employ the required kneader, while comparative examples C1, C2, and C3 employ a stirrer mill with

zirconium dioxide grinding media. Differences in formulations were attributable solely to equipment limitations and requirements such as viscosity requirements.

In contrast, Takahashi has many more numerous and substantive differences. Chief among these is the fact that there is a first sand grinder mixing in Takahashi's Example 1, followed by polymerization to make the actual solid dispersed pigment composition. Thus, Takahashi teaches only a premixing of the pre-polymerization components and the subsequent transfer of the sand grinder mixed 'mixture' into a 1 liter reaction vessel. Takahashi's solid dispersed pigment composition results only after polymerization and must be cooled and filtered, followed by washing, drying, and pulverization.

This is radically different from Applicants' claimed process whereby the solid pigment preparation exits from the required kneader in melt form. No filtration or washing is required to obtain Applicants' claimed solid pigment preparation, merely cooling and pulverization.

It is therefore respectfully submitted that Applicants' working examples compare the claimed products and the process by which they are made against comparative examples that are closer than those of the cited prior art.

Nor are Applicants required to incorporate a gloss limitation into the claims. Rather, the gloss and tint strength data discussed above are merely to show that the claimed process limitations do result in a **product** that is **different**. Therefore, in view of *Thorpe*, Applicants' claimed product does indeed depend on its method of production since Applicants' claimed solid pigment preparation is different from solid pigment preparations of the prior art.

Taken as a whole, it is submitted Takahashi fails to anticipate the invention of Applicants' amended independent claim 1 and all claims dependent thereon. "The true test of any prior art relied on to show or suggest that a chemical compound is old is whether the prior art is such as to place that compound in the possession of the public." *In re Brown*, 329 F.2d 1006, 141 U.S.P.Q. 245 (C.C.P.A. 1964). Moreover, the single source must disclose all of the claimed elements 'arranged as in the claim'. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). In particular, it is

respectfully submitted that one of skill in the art would never be able to obtain Applicants' claimed product given the disclosures of Takahashi.

Accordingly, it is respectfully submitted that the invention of amended independent claim 1 is novel over Takahashi. Reconsideration and removal of the anticipation rejection based on Metz is respectfully requested.

**CONCLUSION**

Applicants respectfully submit that the Application and pending claims are patentable in view of the foregoing remarks. A Notice of Allowance is respectfully requested. As always, the Examiner is encouraged to contact the Undersigned by telephone if direct conversation would be helpful.

Respectfully Submitted,

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